CTR

ithium + Renewable Energy
Powerfully Combined

Sustainable, High-Value U.S. Critical Minerals and Power Production

Secure U.S. Clean Energy Campus

Introducing the world's largest and most sustainable lithium and power production campus where lithium, additional critical minerals, and rare earths will be recovered and processed in one secure U.S. location.

Battery materials production, manufacturing, and recycling facilities can be co-located on site - all powered by firm, clean renewable energy.

One Location - Many Solutions

- Reduce domestic battery supply chain risk
- Increase national clean energy security •
- Stabilize EV battery-pack costs •
- Support massive carbon emission reductions
- Create thousands of new jobs
- Attract new industry, innovation, and capital investment
- Secure domestic lithium for up to 5 million EVs per year







Campus Concept Image Hell's Kitchen - Imperial County, California



Cleaner, faster, efficient lithium production



*NREL Report - May 2021 Techno-Economic Analysis of Lithium Extraction from Geothermal Brines tpa - metric tons per annum lithium hydroxide monohydrate (LHM)

Massive CO₂ and gasoline reductions

Hell's Kitchen Stage 1

Will support **415,000** EV batteries

Creating annual reductions of: **196.7 million** gallons gasoline **1.9 million** CO₂t tailpipe emissions **370,000** CO₂t using sustainable lithium

Estimates: Average 60kg LCE per standard EV passenger vehicle DOE average 474 gallons gasoline usage per passenger vehicle per annum EPA average 4.6 tons CO₂ tailpipe emissions per passenger vehicle per annum Compared to 14.8 CO₂t emissions per metric ton lithium - Australian spodumene/Chinese conversion

Hell's Kitchen All Stages

Will support **5,000,000** EV batteries

Creating annual reductions of: 2.37 billion gallons gasoline **23 million** CO₂t tailpipe emissions **4.4 million** CO₂t using sustainable lithium

From Vision to Reality Getting it done

CTR's strategy to commence engineering for multiple lithium and power stages and the timely development of the Hell's Kitchen project will be critical to the U.S.'s agenda to build a sustainable domestic battery materials supply chain.





CTR completed drilling operations on its first two geothermal production wells and issued a resource analysis confirming lithium concentrations 22% higher than previously reported. Higher concentrations of other critical minerals were also revised.



Demonstration and Optimization Plant to recover lithium

Through CTR's integrated design approach, its engineering team demonstrated improvements in several process stages, including optimization of the brine preparation stage, to achieve highly efficient recovery of lithium from the company's Salton Sea geothermal brine resource.



Lithium Supply Agreements signed with auto giants General Motors and Stellantis

CTR and General Motors entered into strategic investment and lithium supply agreements. Stellantis recently invested over \$100M to advance development of Hell's Kitchen and expanded its Lithium Supply Agreement up to 65,000 metric tons lithium hydroxide monohydrate per year, over a ten-year term.









CTR appointed Hargrove as EPCM Consultants

CTR appointed Hargrove as its Equipment, Procurement, Construction & Management consultants to deliver the Hell's Kitchen Stage 1 lithium project. Hargrove is one of the most respected EPCM contractors in the United States delivering multibillion-dollar projects in the chemical, energy, and refining industries.

MOU signed with Fuji Electric for EPC contracts totaling \$US 1.4 billion

CTR signed a Memorandum of Understanding (MOU) with Fuji Electric for the delivery of geothermal power facilities totaling 330 megawatts (MW) capacity. The EPC contracts, worth a combined \$US1.4 billion, are expected to be delivered over a five-year manufacturing and construction schedule.

California's Governor Gavin Newsom visits the Hell's Kitchen Project

CTR welcomed Governor Gavin Newsom and local leaders to the Hell's Kitchen project. The visit included a live press conference where the Governor, CTR's CEO Rod Colwell, and regional representatives highlighted the progress of 'Lithium Valley'.

Multi-stage project scale-up urgently required

A priority focus on funding support for the commercial scale-up of multiple project stages is urgently required to attract battery materials producers to CTR's Clean Energy Campus and to meet domestic EV production goals.



Leading the world in sustainable development

- Setting new benchmarks as the world's leader in sustainable EV \bigcirc materials and battery production.
- Advancing domestic battery supply chain security.
- Ø Building on active bipartisan support.
- Collaborating with community organizations for sustainable economic development.
- Strengthening domestic lithium production capacity to support President Biden's goal of 50% EV sales by 2030.

The value of supporting a sustainable EV battery hub

Battery Hub 1	Battery Hub 2
pCAM/CAM Cathode/Anode Cell Manufacturing Recycling	Cell Manufacturing Recycling
Investment Potential ~ \$9.5 billion	Investment Potential ~ \$3.5 billion
Jobs ~ 4,500	Jobs ~ 2,500

*Estimates based on comparative operations and co-location potential

"Designing an efficient, modular engineering framework means we can replicate these facilities at each project stage to scale up faster and more cost-effectively."

- Rod Colwell, CEO



CTR

7 Stages Power 350 MW Lithium 175,000 tpa

> Capital Investment ~\$15 billion

> > Jobs ~940

Investment Potential ~\$28 billion

> Jobs ~7,940

Creating local, good-paying jobs



- An estimated 940 good paying, family-sustaining project jobs created at production capacity for Stages 1-7.
- 📀 90+% direct jobs prioritized to local community residents with high school diploma or equivalent.
- A deep commitment to jobs equity and diversity with CTR's current workforce comprising 60% women and team members belonging to underrepresented communities.
- Supporting local workforce development, high schools, colleges and universities, plus on-the-job training and upskilling programs.
- Bringing much-needed economic stimulus and opportunities to Imperial County and surrounding underserved communities.

Direct CTR Project Jobs*



"This is one of those moments. It's one of those inflection points in history... And I think it just has enormous opportunity."

- President Biden

"We see this as one of the greatest economic opportunities of our lifetime and we want California to dominate in this space."

- California Governor Gavin Newsom



"The CEC is committed to supporting this emerging industry and battery supply chain."

- David Hochschild, Chair, California **Energy Commission**

*Cumulative job growth estimates across all project stages. Anticipated dates subject to permitting and construction timelines

Source: Imperial Valley Economic Development Corporation – Hell's Kitchen Lithium and Power Economic Impact Analysis 2020





"We are protecting our future by developing a strategic mineral resource and promoting an environmentally friendly business practice."

> - Imperial County Supervisor Ryan E. Kelley



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